Commonwealth of Massachusetts
Executive Office of Energy & Environmental Affairs

Department of Environmental Protection
One Winter Street Boston, MA 02108 • 617-292-5500

DEVAL L. PATRICK
Governor

TIMOTHY P. MURRAY
Lieutenant Governor

RICHARD K. SULLIVAN JR.
Secretary

KENNETH L. KIMMELL
Commissioner

PROPOSED AMENDMENTS TO

THE CLEAN AIR ACT SECTION 111(d)/129 STATE PLAN, INCLUDING THE MUNICIPAL WASTE COMBUSTOR REGULATION 310 CMR 7.08(2)

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THE CLEAN AIR ACT SECTION 110 OZONE STATE IMPLEMENTATION PLAN, INCLUDING THE MUNICIPAL WASTE COMBUSTOR REGULATION 310 CMR 7.08(2); THE NO_x REASONABLY AVAILABLE CONTROL TECHNOLOGY REGULATION 310 CMR 7.19; AND THE DELETION OF 310 CMR 7.27, 7.28 AND 7.50, AND ASSOCIATED CHANGES TO 310 CMR 7.02, 7.29, 7.00: *APPENDIX A*, AND 7.00: *APPENDIX B*

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CLEAN AIR ACT SECTION 110 STATE IMPLEMENTATION PLANS, INCLUDING THE DEFINITIONS AT 310 CMR 7.00

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Contents

A. SUMMARY

The Massachusetts Department of Environmental Protection (MassDEP or Department) is proposing amendments to two sets of regulations that apply to municipal waste combustors (MWCs). The first set of changes make Massachusetts regulations consistent with federal regulations, as explained in section B.1. and C.1. below, and make the federal provisions state-enforceable. The second set of changes lowers the allowable level of nitrogen oxides (NO_x) that can be emitted by MWCs in Massachusetts, consistent with MassDEP's finding that current reasonably available control technology (RACT) has improved to allow greater control of NO_x emissions, as explained in sections B.2. and C.2. below. In addition, MassDEP is proposing to add a definition for National Ambient Air Quality Standards (NAAQS) as explained in section C.5. below, and to delete outdated regulations as explained in section C.6. below.

B. BACKGROUND

1. LARGE[1] MWC EMISSIONS GUIDELINES (EGs) AND THE MWC STATE PLAN

The Clean Air Act Amendments of 1990 (CAA) direct the United States Environmental Protection Agency (EPA) to periodically review and, if appropriate, revise regulations to control air pollution from municipal solid waste (MSW) incineration units. Pursuant to §§111(d) and 129 of the CAA, EPA required states to submit a Municipal Waste Combustor State Plan (MWC State Plan) for implementing EPA's 1995 Emissions Guidelines (EGs). The MWC State Plan must contain a number of elements, including regulations for MWCs and a list of facilities subject to the MWC State Plan. On August 21, 1998, MassDEP promulgated a *Municipal Waste Combustors* regulation at 310 CMR 7.08(2), which included emission limitations and requirements at least as stringent as those contained in the 1995 EGs. MassDEP then promulgated minor revisions to 310 CMR 7.08(2) in 2001 ("the 2001 MWC regulation") and submitted the regulations as part of its MWC State Plan to EPA on November 16, 2001. On October 9, 2002, EPA approved the Massachusetts MWC State Plan for implementing and enforcing provisions for existing large MWC units that were at least as protective as the federal EGs.

On May 10, 2006, EPA promulgated amendments to *Emissions Guidelines and Compliance Times for Large Municipal Waste Combustors That are Constructed on or Before September 20, 1994* in the Code of Federal Regulations (CFR) Title 40 Part 60 Subpart Cb (40 CFR 60 subpart Cb), amending the original Emissions Guidelines (EGs) promulgated on December 19, 1995.

The amended EGs reflect the performance levels being achieved by existing MWC units at the time EPA proposed the EGs in 2005. EPA's amendments to the EGs revise: (1) previously established particulate matter, cadmium, lead and mercury emission limits, and dioxin/furan emission limit for facilities with electrostatic precipitators (ESPs); (2) compliance testing and monitoring provisions; and (3) operating practices.

Now that EPA has updated its EGs for MWCs, MassDEP must amend its MWC regulations to incorporate EPA's 2006 EGs so that the state MWC regulations are at least as stringent as the 2006 EGs.

The amended EGs in 40 CFR 60 subpart Cb at 60.39b(h) state, "… all designated facilities … shall be in compliance with all of the guidelines … and the revised testing provisions … no later than May 10,

[1] "Large MWCs" are those with the capacity to combust more than 250 tons of MSW per day. "Small MWCs" are those with the capacity to combust at least 35, but no more than 250, tons of MSW per day.

2011."[2] That means that all large MWC facilities must meet the 2006 EGs. The amended EGs are currently federally enforceable. MassDEP cannot enforce the amended EGs, since they have not yet been incorporated in Massachusetts regulations and the MWC State Plan. In addition, because the revised provisions of the amended EGs have not yet been incorporated into Massachusetts regulations and the MWC State Plan, the MWC State Plan is not at least as protective as the amended EGs as required under the CAA.

At this time, MassDEP is proposing to amend its existing 2001 MWC regulation to incorporate EPA's revised 2006 EGs for large MWCs. Once finalized, MassDEP will submit the amended regulations to EPA as a modification to MassDEP's approved Massachusetts MWC State Plan, in accordance with §§111(d) and 129 of the CAA. In addition, MassDEP is proposing to remove the closed Fall River MWC, which ceased operation in June 1999, from the list of existing Massachusetts MWC facilities subject to the MWC State Plan.[3] All of the other sections of the MWC State Plan have previously undergone public comment and hearing and have been approved by EPA. Therefore, since the Department is not proposing amendments to other MWC State Plan sections, it is only taking comments on the proposed amendments to the 2001 MWC regulation and deletion of the Fall River MWC from the list of existing Massachusetts MWC facilities subject to the MWC State Plan. See Sections C and D below for a description of proposed amendments to the 2001 MWC regulation, and see Appendix A for the text of the proposed amendments.

2. MWC RACT AND THE OZONE STATE IMPLEMENTATION PLAN (SIP)

The 1990 CAA, §182(f), requires states to adopt RACT[4] for all major stationary sources of NO_x. In 1999, EPA approved 310 CMR 7.08(2) *Municipal Waste Combustors* and 310 CMR 7.19 *Reasonably Available Control Technology (RACT) for Sources of Oxides of Nitrogen (NO_x)*, subsection (9) *Municipal Waste Combustor Units* as components of the Massachusetts ozone SIP containing NO_x limits representing then-current RACT for MWCs.

MassDEP has reviewed its RACT requirements for purposes of the 1997 and 2008 updates to the ozone NAAQS to determine if existing NO_x controls on the MWC category still constitute RACT and whether it is cost effective to further reduce NO_x emissions from existing MWCs. The analysis concluded that RACT for MWCs needed to be revised.

At this time, MassDEP is proposing to amend the existing NO_x emission standards contained in its regulation for large MWCs (at 310 CMR 7.08(2)) and its regulation for small MWCs (at 310 CMR 7.19(9)) to incorporate the revised NO_x RACT limits. Once finalized, MassDEP will submit the amended regulations to EPA to be incorporated into the Massachusetts ozone SIP in accordance with §110 of the CAA. See Sections C and D below for a discussion of the proposed amendments to the regulations, and see Appendix A for the text of the proposed amendments.

[2] Emission tests conducted after May 10, 2011 must demonstrate compliance with the revised provisions.
[3] Removing the closed Fall River MWC from the list of existing MWC facilities subject to the MWC State Plan does not allow a new incinerator to open without first applying for and receiving MassDEP construction approval. In addition, the current Massachusetts Solid Waste Master Plan prohibits any new MWC incinerators in Massachusetts.
[4] EPA has defined RACT as: "the lowest emission limitation that a particular source is capable of meeting by the application of control technology that is reasonably available considering technological and economic feasibility" (44 FR 53762; September 17, 1979).

C. DESCRIPTION OF THE PROPOSED AMENDMENTS

1. MWC EGs

In order to incorporate the revised federal EGs into 310 CMR 7.08(2), the pollutants and emission limits in the following Table are proposed to be revised. In addition, operating practices and compliance testing and monitoring provisions are proposed to be revised to align with the federal EGs as detailed in section D.1. below.

Pollutant (milligram per dry standard cubic meter, corrected to 7% oxygen (mg/dscm @ 7% O_2, except as indicated)	**Old limit**	**Revised limit**
Particulate matter	27	25
Cadmium	0.040	0.035
Lead	0.440	0.400
Dioxin/Furan with electrostatic precipitator (nanogram/dscm @ 7% O_2)	60	35
Mercury in any quarterly test	0.080	0.050

MassDEP is seeking comment on these proposals.

2. NO_x RACT

MassDEP's RACT analysis concluded that RACT for MWCs needed to be revised based on technological advances, on New Jersey's current NO_x RACT standard and Connecticut's NO_x emission standards for MWCs, and on existing NO_x emissions and approvals[5] for certain Massachusetts MWCs.

Current NO_x emission standards

The Table below shows NO_x emission standards currently effective for MWCs under Massachusetts, federal, and other state regulations, and proposed under Massachusetts regulations.

[5] Existing approvals can be more stringent than existing regulations for a number of reasons, typically resulting from review of equipment upgrade applications or as an outcome of an enforcement action.

MWC type	**Regulatory Citations and MWC NO_x Emission Standards** (daily average parts per million by volume dry basis (ppmvd) corrected to 7% oxygen (O_2)[a])							
	310 CMR 7.19(9)		310 CMR 7.08(2)		40 CFR 60 Subpart Cb (large MWCs)	40 CFR 62 Subpart JJJ (small MWCs)	Regulations of Connecticut State Agencies 22a-174-38	New Jersey Administrative Code 7:27-19.12
	Current	Proposed	Current	Proposed				
Mass Burn Waterwall constructed on or before December 31, 1985	349 (= 0.6 pounds per million British thermal units (lb/mmBtu)) (hourly average)	See regulation 310 CMR 7.08	205	150	205	No sources in these categories exist in MA	200	150
Mass Burn Waterwall constructed after December 31, 1985							177	
Refuse-Derived Fuel Stoker			250	146	250		146	n/a
Mass Burn Refractory		125	205	See regulation 310 CMR 7.19	No limit	350	177	

[a] All NO_x parts per million smokestack concentrations in this document are corrected to an oxygen level of 7%.

Technological advances

Due to advances in technology, the ability to control NO_x emissions from MWCs has improved. In particular, the use of selective non-catalytic reduction (SNCR) and optimization of combustion and emissions controls allow MWCs to operate at lower NO_x levels than in the past.

SNCR is a chemical process in which an ammonia or urea reagent is injected in a boiler to chemically convert NO_x created during combustion into nitrogen gas and water vapor. SNCR performance depends on factors including, for example, flue gas temperature, residence time for the reagent and flue gas, amount of reagent injected, reagent distribution, uncontrolled NO_x level and carbon monoxide and oxygen concentrations.

Optimization of existing SNCR air pollution control systems can often result in additional emission reductions at relatively low capital cost. Control optimization may include applying computational fluid dynamic modeling to determine better distribution of reagent or addition of reagent injection ports.

New Jersey's NO_x RACT limit for Mass Burn Waterwall MWCs

On April 20, 2009, New Jersey adopted a MWC NO_x RACT emission standard of 150 ppmvd for MWCs equivalent to Massachusetts' "Mass Burn Waterwall" MWC category. New Jersey has already demonstrated in its rulemaking process that a NO_x emission limit of 150 ppmvd is feasible for Mass Burn Waterwall MWCs through use of RACT. MassDEP is therefore proposing a NO_x RACT emission standard that is at least as stringent as 150 ppmvd for these MWCs.

Current NO_x Emissions and Connecticut's NO_x limit for Refuse-Derived Fuel Stoker MWCs

Approvals and permits of the three large refuse-derived stoker MWC units at SEMASS in Rochester, MA contain daily NO_x emission limits equivalent to 151, 151 and 180 ppmvd NO_x, which are more stringent than required by the existing Massachusetts and federal regulations indicated in the above chart.

On October 26, 2000, Connecticut adopted a MWC NO_x emission standard of 146 ppmvd for a MWC equivalent to Massachusetts' "Refuse-Derived Fuel Stoker" MWC category starting May 1, 2003. Since this Connecticut facility has already demonstrated[6] that a NO_x emission limit of 146 ppmvd is reasonably achievable for Refuse-Derived Fuel Stoker MWCs, MassDEP must propose a NO_x RACT emission standard that is at least as stringent as 146 ppmvd for these types of MWCs in Massachusetts.

Current NO_x Emissions and Approvals for Mass Burn Refractory MWCs

Approvals and permits of the small mass burn refractory MWCs in Pittsfield, MA and Agawam, MA contain daily NO_x emission limits of 192 and 167 ppmvd NO_x, which are more stringent than the existing NO_x emissions limits required by the Massachusetts and federal regulations indicated in the above chart. In addition, the facilities are subject to 365-day rolling average limits of 122 and 137 ppmvd NO_x, respectively. As explained by the Agawam facility's owner, "mass burn refractory units … by design emit relatively low NO_x through combustion controls and flue gas recirculation, and they typically operate in a range of about 120+ ppm." The following factors were considered to propose a NO_x RACT level for these units:

- The low NO_x emission limits in these approvals and permits, and the emissions from the Agawam MWC, demonstrate that it is feasible for small MWCs in Massachusetts to meet a daily emission standard below the NO_x RACT emission standards of 146 and 150 ppmvd proposed for other types of Massachusetts MWCs.

[6] See NO_x emission data at http://www.crra.org/pages/emiss_mc_l.htm#nox

- No Mass Burn Refractory MWC that has retrofitted NO_x controls was found in EPA's RACT/BACT/LAER Clearinghouse[7]; therefore, there is no evidence that add-on NO_x controls represent RACT for this type of MWC.

Therefore, MassDEP proposes 125 ppmvd as NO_x RACT for Mass Burn Refractory MWCs, based on the NO_x emission data from the Agawam MWC.

Proposed NO_x RACT

Based on technological advances, on the currently effective New Jersey NO_x RACT and Connecticut emission standards for MWCs, and on existing NO_x emissions and emission standards for certain Massachusetts MWCs, MassDEP is proposing revised daily NO_x RACT emission limits of 150 ppmvd for Mass Burn Waterwall MWCs, 146 ppmvd for Refuse-Derived Fuel Stoker MWCs, and 125 ppmvd for Mass Burn Refractory MWCs. Proposing lower MWC NO_x RACT emission limits will set a precedent for the adoption of more stringent NO_x emission limits in upwind states whose NO_x emissions are transported to Massachusetts, where they contribute to the formation of ozone in Massachusetts.

For ease of implementation, MassDEP is proposing to incorporate the NO_x RACT limit for large MWCs into 310 CMR 7.08(2), rather than 310 CMR 7.19, so that all of the emission limits for large MWCs will be in a single regulation.

Two MWC facilities each have three small MWC units in Massachusetts. Since 310 CMR 7.08(2) applies only to large MWC units,[8] MassDEP is proposing to incorporate the NO_x RACT limit for small MWCs into 310 CMR 7.19(9).

It is possible that individual MWCs may have site-specific conditions that make achieving the proposed NO_x emission limit technologically or economically infeasible. Therefore, MassDEP is proposing to add an option allowing owners of large MWCs who believe they cannot comply with the revised NO_x RACT limit to apply for a source specific alternative NO_x limit, using the same procedures currently specified in 310 CMR 7.19 and available to small MWCs. If the required technological and economic feasibility evaluation is submitted, an alternative to the proposed NO_x RACT limit may be approved. However, to ensure NO_x emissions do not exceed an upper "backstop" limit, the regulation proposes that an alternative NO_x limit can be no greater than 185 ppmvd, lower than the federal EGs NO_x limit of 205 ppmvd included in the current 310 CMR 7.08(2). Feedback submitted by MWC owners as part of the stakeholder process to develop this proposed regulation (see "Public Participation" below) indicated that all MWCs in Massachusetts could reduce NO_x emissions to at least 185 ppmvd.

MWCs may utilize equipment that uses ammonia or urea to control NO_x emissions. To minimize any ammonia (or urea that has converted to ammonia) that "slips" by a control device unused, the department is considering two alternatives. One alternative would require MWC units that use ammonia or urea injection for NO_x control to:

- conduct ammonia optimization testing,
- submit a report to MassDEP correlating NO_x emissions and ammonia slip, and
- propose an ammonia emission limit that the Department:

[7] See http://cfpub.epa.gov/RBLC/

[8] The small MWCs in Pittsfield and Agawam were required, through Administrative Consent Orders ACO-WE-99-9001-27-SEP and ACO-WE-03-7001-SEP, to meet the 205 ppmvd NO_x limit in 310 CMR 7.08 as in effect on August 21, 1998 and April 26, 2002, respectively. The Consent Orders do not require the small MWCs to comply with any future amendments to 310 CMR 7.08. However, this limit has been superseded in the facilities' permits by NO_x emissions limits of 192 and 167 ppmvd NO_x, as determined through MassDEP's review and approval of applications submitted by the MWCs located in Pittsfield and Agawam.

- will review,
- may modify in a draft approval published for public comment, and
- will finalize in an approval or disapproval.

The other alternative would allow each facility to choose between conducting optimization testing or complying with a presumptive ammonia limit. The Department is soliciting comment on whether to include such a presumptive ammonia limit, and, if so, what that value should be. Natural gas-fired power plants in Massachusetts have ammonia limits as low as 2 ppmvd, while some Massachusetts MWC units have an existing ammonia limit of 10 ppmvd in conjunction with complying with the current 205 ppmvd NO_x limit. The specific equipment MWCs use to comply with a lower NO_x RACT limit could result in a range of outcomes, from MWCs that are able to eliminate use of ammonia and urea by reducing the formation of NO_x to begin with, to others that may need to increase use of ammonia and urea.

The deadlines for ammonia testing and the associated submittals would be specified in the approval issued by the Department (see "Effective Dates, Application Deadlines And Implementation Deadlines" below for discussion of Department approvals).

Lastly, the current 310 CMR 7.08(2) includes an option allowing the NO_x emissions at facilities with more than one MWC unit to be averaged, while keeping the average below a NO_x limit (which varies by the type of MWC) of either 185 or 230 ppmvd. MassDEP is proposing to delete the NO_x averaging option, or, as an alternative, replace the current 185 and 230 limits with a limit equal to the proposed revised NOx RACT limit for that type of MWC. Feedback received from MWC owners indicates that all the MWC units expected to be able to achieve a revised NO_x limit expect to do so at every unit at the facility, therefore making the averaging provision unnecessary.

MassDEP is seeking comment on these proposals.

3. EFFECTIVE DATES, APPLICATION DEADLINES AND IMPLEMENTATION DEADLINES

The small MWCs are expected to be able to comply with the revised NO_x RACT limit using currently approved equipment, and, if so, would be required to notify the Department within a month of the regulation being promulgated, and comply with the revised NO_x RACT limit within three months of the regulation being promulgated. If the small MWCs instead choose to install new air pollution control equipment to comply with the revised NO_x RACT limit, they would be required to submit a 310 CMR 7.19 emission control plan (ECP) application within six months of the regulation being promulgated and comply with the revised NO_x RACT limit within a year of receiving MassDEP approval of the ECP application, but in no case later than 2 years after the regulation being promulgated.

As indicated in section B.1., the large MWCs are already required to comply with the revised EGs; therefore, the revised EGs provisions being incorporated in 310 CMR 7.08(2) are proposed to take effect upon promulgation of the 310 CMR 7.08(2) amendments. However, the large MWCs will need to apply for a new 310 CMR 7.08(2) ECP approval within six months of the regulation being promulgated in order to incorporate the revised federal EGs limits. This application would also be used to obtain approval of any new air pollution control equipment needed to comply with the revised NO_x RACT limit. Large MWCs would be required to comply with the revised NO_x RACT limit within a year of receiving MassDEP approval of the ECP application, but in no case later than 2 years after the regulation being promulgated.

MassDEP is seeking comment on these proposed processes and timelines.

4. DELETING THE MERCURY WAIVER

In order to streamline the MWC regulations, MassDEP is proposing to delete the Limited Waiver from Mercury Limit section of the MWC regulations that is no longer available to the MWCs.

The "Limited Waiver from Mercury Limit" at 310 CMR 7.08(2)(g)4. resulted from a Settlement Agreement between MassDEP and the Integrated Waste Services Association (IWSA), dated April 30, 2001. Under the Limited Waiver section, MWCs using ESPs could apply for a waiver from the mercury emission limit. However, the provisions of 310 CMR 7.08(2)(g)4. have limited effect, as follows. Under 310 CMR 7.08(2)(g)4.e., Extension of the Mercury Waiver, "A petition to the Department for the extension of a limited waiver beyond the December 31, 2003 deadline may be submitted by plants using electrostatic precipitators no later than August 1, 2003. The Department may grant a maximum two year extension." Therefore, the latest date on which such waiver could remain in effect would be December 31, 2005.

Because the time by which a MWC could apply for a limited waiver has passed, and the provision is no longer applicable, MassDEP is proposing to delete 310 CMR 7.08(2)(g)4. in its entirety from the MWC regulations.

MassDEP is seeking comment on this proposal.

5. ADDING DEFINITION OF NAAQS

310 CMR 7.00 uses the term National Ambient Air Quality Standards (NAAQS) but does not define the term or indicate to which version of the standards the air regulations refer. EPA has indicated that in order for EPA to approve MassDEP's *Certification of State Implementation Plan (SIP)* with respect to the 1997 and 2006 particulate matter NAAQS, MassDEP must, by September 2013, add a definition of NAAQS that includes a calendar date, to make clear to which NAAQS version MassDEP's regulations refer.

MassDEP is proposing to add a definition of "NAAQS" explicitly listing the date the NAAQS were last revised (December 14, 2012). The new definition of NAAQS has the effect of MassDEP only being able to implement and enforce NAAQS adopted by EPA on or before December 14, 2012. MassDEP will need to amend the date in the definition of NAAQS in the future when EPA adopts new NAAQS or updates existing NAAQS. This approach is very similar to the approach MassDEP has taken in referring to the federal MWC EGs in 310 CMR 7.08(2), as discussed elsewhere in this document.

MassDEP is seeking comment on this proposal.

6. DELETING OUTDATED REGULATIONS

MassDEP is proposing to delete three regulations that are no longer in effect: 310 CMR 7.27 *NOx Allowance Program*, 310 CMR 7.28 *NOx Allowance Trading Program* and 310 CMR 7.50 *Variances*. This proposal is consistent with MassDEP's broader effort to streamline regulations by eliminating obsolete and redundant requirements (see www.mass.gov/dep/about/priorities/regreform.htm).

310 CM 7.27 was superseded by 310 CMR 7.28, which was itself superseded by 310 CMR 7.32 *Massachusetts Clean Air Interstate Rule (Mass CAIR)*, which is still in effect. Citations to 310 CMR 7.27 and 7.28 are proposed to be deleted, and updated to 7.32 where appropriate, throughout 310 CMR 7.00.

310 CMR 7.50's origins are in a 1972 Department of Public Health, Division of Environmental Health, Bureau of Air Quality Control (DPH) "Regulation 50. Variances" that provided the right to apply for a one year variance from the application of DPH's regulations. In 1974, DPH included a sunset provision so that any variance granted did not extend beyond May 31, 1975, or such later date as may be prescribed by federal law. After 1974, the variance provision was included in MassDEP's general air regulations at 310 CMR 7.50. Since the regulation does not allow variances to extend beyond May 31, 1975, and federal law has not extended that date, MassDEP is no longer allowed to grant variances from the air regulations under this provision. Moreover, individual state and federal regulations include processes for requesting alternatives for testing, recordkeeping and monitoring from EPA and flexibility in achieving various emission limits. These provisions will remain in effect regardless of whether 310 CMR 7.50 is removed from the air regulations. Therefore, MassDEP is proposing to delete 310 CMR 7.50 *Variances* from the air regulations.

MassDEP is seeking comment on this proposal.

D. DETAILS OF PROPOSED AMENDMENTS TO THE MWC REGULATION AND NO_x RACT REGULATION

1. INCORPORATING THE REVISED FEDERAL EGs IN 310 CMR 7.08(2)

- Numerous provisions in 310 CMR 7.08(2) cite the date of federal amendments to the EGs, and would be updated to refer to the most recent May 10, 2006 amendment date.

- 310 CMR 7.08(2)(f)1.b. would be amended to provide the same exemption from compliance with combustor load and particulate matter control device operating parameter limits preceding and during mercury testing, as the existing regulation already provides for dioxin/furan testing, and to allow exemption from compliance with average mass carbon feed rate limits during mercury and dioxin/furan testing.

- 310 CMR 7.08(2)(f)2. would be amended to revise the existing particulate matter, cadmium and lead emission limits, and the dioxin/furan emission limit for facilities with ESPs. The existing dioxin/furan emission limit for facilities with fabric filters, and existing opacity, mercury and acid gas limits remain unchanged. Although the mercury emission limit in 40 CFR 60.33b(a)(3) was revised from 0.080 to 0.050 mg/dscm, the annual Massachusetts limit is already more stringent than the federal standard at 0.028 mg/dscm. Therefore, the Department is proposing no change to the existing annual mercury emission limit.

- 310 CMR 7.08(2)(f)6.b., (h)11., (i)1., and (i)1.h. would be amended to adopt procedures and associated recordkeeping, notification and reporting provisions for occasions when control room operators provisionally certified under the American Society of Mechanical Engineers (ASME) *QRO-1 Standard for the Qualification and Certification of Resource Recovery Facility Operators* process may perform duties ordinarily restricted to QRO Certified operators and shift supervisors.

- 310 CMR 7.02(2)(g)1.d. and (h)4.e. would be amended and 310 CMR 7.02(2)(g)3.d. would be added to incorporate procedures for calculating 8-hour block average carbon or equivalent usage rates where carbon injection (or equivalent) is used to comply with dioxin/furan and mercury emission limits.

- 310 CMR 7.08(2)(g)2. would be amended to revise the maximum mercury emission limit in any quarterly test from 0.080 to 0.050 mg/dscm. Note that the existing annual mercury standard in

310 CMR 7.08(2) is 0.028 mg/dscm and is not proposed to be amended. The average of the quarterly tests may be no greater than the annual limit of 0.028 mg/dscm, while emissions of any single quarter's test can be no higher than the quarterly limit (now proposed to be 0.050 mg/dscm).

- 310 CMR 7.08(2)(g)2., (h)6. and 7., (i)1.a. and c. and (i)2.a. would be amended, and 310 CMR 7.08(2)(g)1.e., (g)7., 8. and 9., (h)2.i., j. and k., (h)5.e. and f., and (i)3. would be added, to reflect newly available compliance options and related notification, recordkeeping and reporting for continuous particulate matter, mercury, lead, cadmium and hydrogen chloride emissions monitoring and continuous automated mercury and dioxin/furan sampling, in lieu of stack testing using EPA reference methods required under the current regulation.

- 310 CMR 7.08(2)(g)5.a. would be deleted as unnecessary due to the revised more stringent EPA emissions data capture requirements.

- 310 CMR 7.08(2)(h) and 310 CMR 7.08(2)(i) (introductory paragraphs) would be amended to incorporate the recordkeeping and reporting requirements of the federal EGs by reference.

- 310 CMR 7.08(2)(j)1. and 6. and (k) would be amended to revise obsolete deadlines for applying for an ECP approval and complying with the revised EGs.

2. INCORPORATING ADVANCES IN MWC NO_x RACT

- 310 CMR 7.08(2)(f)3. and 310 CMR 7.19(9)(a) would be amended to revise the existing MWC NO_x emission limits of 205 ppmvd and 0.6 lb/mmBtu to revised NO_x RACT limits of 150, 146 or 125 ppmvd, depending on the type of MWC.

- 310 CMR 7.08(2)(f)3. and (k) and 310 CMR 7.19(2)(b) and (9)(a) would be amended to revise the existing dates for complying with the revised NO_x RACT limit.

- 310 CMR 7.08(2)(k) would be amended to add a provision allowing large MWCs that believe they cannot comply with the revised NO_x RACT limit to apply for a source specific alternative NO_x limit, using the same procedures currently specified in 310 CMR 7.19.

- 310 CMR 7.08(2)(f)4. would be amended to remove the current NO_x averaging provisions, and replace them with ammonia provisions applicable to large MWC units that use ammonia or urea injection for NO_x control.

- 310 CMR 7.19(1)(c), (2)(b), (3)(a) and (9) would be amended to clarify that large MWC NO_x emission limits are in 310 CMR 7.08(2), not in 310 CMR 7.19.

- 310 CMR 7.19(9)(c) would be amended to add ammonia provisions applicable to small MWC units that use ammonia or urea injection for NO_x control.

3. STREAMLINING 310 CMR 7.08(2)

- 310 CMR 7.08(2)(g) would be amended and (g)4. would be deleted in its entirety to remove an obsolete provision that allowed for a limited waiver from the mercury emission limits. The last date for MWCs to take advantage of this waiver has passed.

4. CORRECTING TYPOGRAPHIC AND EDITORIAL ERRORS

- 310 CMR 7.08(1)(h) would be amended to clarify the requirement for Plan Approval for incinerators by adding explicit reference to Plan Approval pursuant to 310 CMR 7.02(3) and (5).

- 310 CMR 7.08(2)(g) would be amended to use language consistent with other parts of the regulation ("any" instead of "each").

- 310 CMR 7.08(2)(h)2.e. would be amended to clarify that reporting the highest emissions level is required, but reporting the highest reduction level is not.

- 310 CMR 7.08(2)(h)3. would be amended to match the long-standing federal EG requirement to report opacity exceedances.

- 310 CMR 7.08(2)(j)2. would be amended to include the missing letter "C."

MassDEP is seeking comment on these proposals.

E. AIR QUALITY IMPACTS

As proposed, the NO_x amendments to the MWC regulation will result in reductions in actual emissions of NO_x, an ozone precursor, from MWCs. These reductions are part of Massachusetts' overall strategy designed to improve air quality. The amendments lowering the particulate matter, cadmium, lead and dioxin/furan standards in 310 CMR 7.08(2) to be consistent with federal regulations for large MWCs will make the reductions state-enforceable as well as federally-enforceable.

F. IMPACT ON SMALL BUSINESS

The proposed amendments to the regulations will not adversely impact small businesses. There are seven MWC facilities in the Commonwealth that will be subject to aspects of the proposed amendments. None of the MWC facilities is classified as a small business.

G. IMPACT ON CITIES AND TOWNS

The proposed amendments to 310 CMR 7.08(2) that make Massachusetts' large MWC regulations consistent with federal regulations have no additional cost impact beyond costs the facilities may have already incurred to comply by May 10, 2011, as required by the federal standards.

The proposed amendments to the 310 CMR 7.19 NO_x standard for small MWCs are not expected to add any additional costs to the cities and towns that have contracts with the two small MWC facilities beyond costs the facilities may have already incurred to comply with existing requirements, because the facilities are expected to be able to meet the revised NO_x standard with existing equipment.

Of the 11 large MWC units at five MWC facilities:

- two meet the lower NO_x limits,
- seven have installed SNCR equipment and could inject more urea or ammonia to meet the lower NO_x limit, and
- two units have installed SNCR but are expected to apply for a less stringent source-specific alternative.

The large MWC units could have one-time costs of approximately $800,000 (representing approximately 0.4% of the annual state-wide tipping revenue of over $200 million) and ongoing cost increases of approximately $280,000 (approximately 0.1% of annual state-wide tipping revenue).

The proposed amendments to the NO_x RACT standard for large MWCs could add additional small costs to the cities and towns that have contracts with the five facilities, depending on the terms of the contracts between the cities and towns and the MWCs. As discussed in section C.2. above, any MWC unit may apply for a source specific alternative NO_x limit, which the Department would review to evaluate technological and economic feasibility; resulting compliance costs would depend on the characteristics of a particular MWC unit.

H. AGRICULTURAL IMPACTS

Pursuant to M.G.L. c. 30A, § 19, state agencies should evaluate the impact of the proposed programs on agriculture within the Commonwealth. The Department has determined that the proposed amendment to the MWC regulation will have no adverse effect on agricultural facilities. The impacts to agriculture will be beneficial, as the regulation will help Massachusetts attain National Ambient Air Quality Standards for ozone and other harmful pollutants, specifically mercury, and therefore, lower crop damage attributable to air pollution.

I. MASSACHUSETTS ENVIRONMENTAL POLICY ACT (MEPA)

The proposed regulations are exempt from the "Regulations Governing the Preparation of Environmental Impact Reports," 301 CMR 11.00, in that no MEPA review threshold set forth in 310 CMR 11.03 is met or exceeded. In addition, these proposed regulations do not reduce standards for environmental protection, nor do they reduce opportunities for public participation in review processes or public access to information generated or provided in accordance with the regulations (see MEPA review threshold pertaining to promulgation of regulations at 301 CMR 11.03(12)).

J. IMPACTS ON OTHER PROGRAMS – AIR TOXICS

Air toxics are a group of chemical air contaminants that are associated with significant environmental impacts or adverse health effects such as cancer, reproductive effects and birth defects. Toxics use reduction is a MassDEP priority. Toxics use reduction is defined as in-plant practices that reduce or eliminate the total mass of contaminants discharged to the environment. The proposed amendments to the regulations align the state emission standards for large MWCs with the lower federal limits for the air toxics cadmium and dioxin/furan, which have been in effect since May 10, 2011.

K. PUBLIC PARTICIPATION

MassDEP held a public stakeholder meeting on June 9, 2011, inviting the public and other stakeholders, including the MWCs, municipalities, and environmental organizations, to provide feedback on a pre-hearing draft version of amendments to the MWC and NO_x RACT regulations. The proposed regulation was revised to adopt many of the suggestions offered during this process.

As provided by state law, M.G.L. 30A, the Department publishes a notice at least 21 days prior to a public hearing on proposed amendments. However, as required by EPA when regulation amendments will be submitted to EPA as part of the MWC State Plan and ozone SIP, the Department publishes a notice at least 30 days prior to a public hearing on proposed amendments. The hearings will be held in accordance with the procedures of M.G.L. Chapter 30A. A copy of the Background Document and the Proposed Amendments to the MWC regulation can be obtained for review by interested parties at

MassDEP's headquarters, One Winter Street, Boston, as well as in each of the four MassDEP regional service centers. In addition, the documents are available on the MassDEP website at http://www.state.ma.us/dep.

The Department will hold a public hearing on these proposed amendments at 10am on July 1, 2013 at MassDEP's headquarters, One Winter Street, Boston. The Department will consider the comments received at this hearing in its final decision on these amendments.

MassDEP requests that written comments be submitted electronically via e-mail to: DEP.Stationary@state.ma.us.

Written comments may also be sent to: Sharon Weber, Department of Environmental Protection, Bureau of Waste Prevention, One Winter Street, Boston, MA 02108.

Questions about this document may be addressed to Sharon Weber at 617-556-1190, sharon.weber@state.ma.us, or the address above.

APPENDIX A

THE COMMONWEALTH OF MASSACHUSETTS
DEPARTMENT OF ENVIRONMENTAL PROTECTION
BUREAU OF WASTE PREVENTION
BUSINESS COMPLIANCE DIVISION
ONE WINTER STREET
BOSTON, MASSACHUSETTS 02108

AMENDMENTS TO 310 CMR 7.00
REGULATIONS FOR THE
CONTROL OF AIR POLLUTION

STATUTORY AUTHORITY
M.G.L. c. 111, S. 142A THROUGH 142N